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ABSTRACT

The evidence regarding the effects of school desegregation upon black student achievement remains inconsistent and inadequate, despite the production of a large number of empirical investigations. It is proposed that social scientists abandon traditional research models of the school desegration process, and instead attempt to observe and characterize the situational factors which elicit both continuing and classroom-related achievement motivation in minority students. Particular attention should be focused initially upon teacher attitudes and behavior, and upon other classroom factors which affect students' choice of comparison persons and attributions for academic success and failure. (Author)

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Black Student Achievement in Desegregated Schools: Suggestions for Future Research

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Black Student Achievement in Desegregated Schools:

Suggestions for Future Research

Nearly 25 years have passed since the Supreme Court issued its decision in Brown vs. Topeka Board of Education. Given the testimony of various social scientists cited by the Court in its decision, it now appears particularly appropriate to evaluate the empirical evidence regarding the educational consequences of school desegregation for black students. Indeed, within the past 18 months, three, independent, major reviews of the school desegregation literature have appeared (viz., Bradley & Bradley, 1977; Stephan, 1978; Weinberg, 1977). The purpose of my presentation is two-fold. First, I will briefly discuss the conclusions of the above-noted reviews with regard to the effects of school desegregation upon the academic achievement of black students. Second, on the basis of laboratory studies reported in the social psychology literature, I will propose some detailed suggestions for investigations of the situational factors that are causally related to the academic achievement of black students.

The Conclusions of Recent Reviews

Bradley and Bradley (1977), Stephan (1978) and Weinberg (1977) have all provided substantive examinations of the school desegregation literature. It is unfortunate, however, that the various authors have come to different conclusions regarding the effects of school desegregation upon black student achievement. Weinberg (1977), in the most extensive literature review, concluded that regardless of the manner in which desegregation occurs, the "achievement of minority children usually rises when they learn together with other

children" (p. 122). Stephan (1978) recently provided the more cautious conclusion that desegregation rarely produces decreases and sometimes produces increases in black student achievement. Stephan described his own conclusion as "somewhat unexpected" (p. 233) since the literature had also shown that school desegregation (a) reduces neither the prejudices of white students toward blacks nor those of black students toward whites; and (b) does not increase the self-esteem of black students. However, Stephan (1978) noted that the "results for the achievement studies are considerably more valid than those for the studies of prejudice and self-esteem because better measures have been employed and the studies were generally more carefully designed" (pp. 232-233).

In contrast to the Stephan (1978) and Weinberg (1977) reviews, Bradley and Bradley (1977) used a methodological analysis in an attempt to provide greater understanding of the school desegregation literature. It was found that many studies showed school desegregation to be positively related to black student achievement. However, each of the studies reporting positive desegregation effects suffered from methodological deficiencies that weakened the validity of their findings. Even the studies described by Bradley and Bradley (1977) as relatively well-designed were subject to methodological weaknesses. The most notable of these weaknesses was the use of unequivalent experimental and control samples (see St. John, 1975) which precluded any generalizations concerning the effects of school desegregation upon black student achievement. It was concluded, therefore, that the evidence regarding the effects of school desegregation upon black student achievement was both inconsistent and inadequate.

In a recent comment on Stephan's (1978) review, Bradley and Hopson (Note 1) reported that only two of the 10 investigations described as showing positive effects of school desegregation upon black student achievement were even relatively free of severe methodological deficiencies. Bradley and Hopson (Note 1) therefore concluded that the investigations regarding the educational consequences of school desegregation were no more carefully designed and provided no more valid results than studies concerning the effects of desegregation upon student prejudice and self-esteem. To summarize, despite the production of numerous publications, dissertations and technical reports, the effects of school desegregation upon black student achievement have not been adequately examined.

Several questions now must be posed. First, given that only the literature which appeared before 1976 has been carefully reviewed, have any more recent, longitudinal field investigations provided valid evidence regarding the relationship between school desegregation and black student achievement? Of far greater importance, however, are the questions (a) what should be the proper focus of future investigations regarding school desegregation and (b) how might we best conduct these investigations?

More Recent Evidence Regarding the Effects of School Desegregation Upon Black Student Achievement

A search for published and unpublished, longitudinal field investigations regarding the effects of school desegregation upon black student achievement yielded no substantive, empirical studies.[1]

Felice (1975), for example, produced a more detailed report than that originally provided in 1974 of a court-ordered, busing program in Waco, Texas. It was found that, prior to desegregation, the achievement test battery scores of bused and segregated (control) black students in grades 7-12 did not differ significantly from one another. Following two years of desegregation, however, the bused students produced significantly lower scores than did the control students on both the achievement test battery and its reading subtest.

In their review of the original Felice (1974) investigation, Bradley and Bradley (1977) stated that the investigation could not be evaluated until it was known whether or not there was equivalence of the (a) bused and control students and (b) sending and receiving schools. Felice (1975) reported that all bused students were transferred to schools within the city school district. Thus, the Felice investigation appears to have met the assumption of school equivalence. Felice (1975), however, noted that students were assigned to bused and control groups on a "non-random" (p. 8) basis. This fact and the high attrition of both the bused (48%) and control (54%) students during the course of the investigation strongly suggests that student equivalence cannot be assumed. Thus, no valid generalizations regarding the educational consequences of school desegregation may be made on the basis of the Felice (1974; 1975) investigation.

Similar to the Felice (1975) report, Turner and Beers (1977) provided a follow-up of an investigation (Beers & Reardon, 1974) of a central schools plan in Harrisburg, Pennsylvania. Beers and Reardon (1974) originally reported that, after two years of

desegregation, the achievement gains made by sixth-grade black students, relative to those of their white counterparts, were enhanced by school desegregation. Bradley and Bradley (1977), however, concluded that due to a large number of methodological deficiencies (e.g., no tests of significance, inappropriate comparison of white and black students' gain scores, effects of desegregation confounded by changes in personnel, policy and practice within the school system) associated with their study, the results reported by Beers and Reardon (1974) must be considered to be quite tenuous. Turner and Beers (1977) compared the predesegregation achievement levels of classrooms containing both black and white students in grades 1-6 with the achievement levels of central schools' classrooms with first- through sixth grade students after six years of desegregation. It was reported that prior to desegregation, the lowest achievement levels were found in the predominantly black clasrroms. Following six years of desegregation, classrooms with black and white students in grades 1-3 showed "considerable" (p. 5) increases relative to the predesegregation achievement levels of first- through third grade classrooms. The achievement levels of the desegregated, upper elementary classrooms closely resembled those of the segregated, fourth- through sixth-grade classrooms. At no grade level, however, were the postdesegregation achievement scores as low as the predesegregation scores attained by the predominantly black classrooms.

There were two major methodological weaknesses associated with the Turner and Beers (1977) investigation. First, it was inappropriate

to use the classroom as the unit of analysis since the analysis precluded independent assessment of white and black students' achievement levels. Second, the lack of an adequate control group and the attempt to combine cross-sectional and longitudinal data analyses ruled out any inferences regarding the effects of school desegregation on student achievement. In summary, the data presented by Turner and Beers (1977) was adequate only for descriptive purposes.

Our literature search yielded two empirical investigations (Higgins, 1976; Griffore, Simmons, Hebert & Smith, 1977) that had not been described in previous publications. Higgins (1976) examined the effects of a busing program in St. Paul, Minnesota upon the achievement levels of 100 black students in grades 1 and 3. These students were bused from predominantly black schools to predominantly white schools within the St. Paul school system. The achievement levels of the first- and third-grade bused students and those of comparable samples of black students in grades 1 and 3 ($\underline{N}$ = 117) who remained in segregated schools were compared both prior to desegregation and in grades 6 and 9, respectively. It was reported that the bused and control students "seemed generally to have maintained their relative standing among national norm groups of same aged peers" (p. 18). It was concluded that neither segregated nor desegregated education appeared to provide a more appropriate model for the education of minority students.

It should be noted that although the Higgins (1976) investigation met the assumptions of subject and school equivalence, there was a great deal of attrition within both the bused and control

samples. The attrition rates varied from a low of 22% for the bused students in grade 3 to a high of 47% for the first-grade, bused students. In addition, the failure to report statistical tests of significance precluded any interpretation of the results. Higgins' (1976) findings, therefore, must be termed equivocal.

Griffore et al. (1977) examined a busing and central schools program in Lansing, Michigan that was voluntarily implemented by the local board of education. The pre- to postdesegregation achievement gains of an unspecified number of black students in grades 3-6 were compared over a period of three years to the achievement gains of third- through sixth-grade (a) white students and (b) black students who remained in segregated schools. It was found that the busing and central schools program had no consistent effect upon the academic achievement of desegregated black students. It was noted, however, that the increase in the white-black achievement gap appeared to slow as a function of the desegregation program.

Although the Griffore et al. (1977) investigation appeared to meet the assumptions of school equivalence and low student attrition, it was possible that systematic differences existed between the desegregated and segregated black students. In addition, the failure to specify both the type of statistical analyses employed and the results of significance tests ruled out any inferences regarding the effects of the desegregation plan upon black student achievement.

In summary, the four investigations described above all suffered from severe methodological deficiencies which greatly weakened the validity of the reported results. The recent literature,

therefore, provided no valid evidence concerning the effects of school desegregation upon the academic achievement of black students.

A More Appropriate Focus and Methodology for Future Research

Given the failure of social scientists to adequately investigate the school desegregation process, it appears reasonable to suggest that there currently exists a "crisis" (Kuhn, 1970) within the social science community. Several investigators (e.g., Bradley & Bradley, 1977; Gerard & Miller, 1975; St. John, 1975) have suggested that social scientists may be asking the wrong questions and using inappropriate research methods in their investigations of the educational consequences of school desegregation.

A loosening of the established procedures and assumptions typically associated with school desegregation research, however, may help resolve the current crisis. It has been noted that the use of school desegregation as an intervention strategy to increase black student achievement is based in part upon a rather mechanistic view of achievement motivation (cf., Bradley & Bradley, 1977). That is, it is generally accepted that black students lack the achievement-related personality characteristics and values of white students. If, however, black students are exposed to white school- or classmates, they will somehow adopt the achievement-related values of the white students and thereby increase their academic performance (Bradley & Bradley, 1977; Bradley & Hopson, Note 1). Due to the widespread acceptance of the model of achievement motivation described above, investigators of the school desegregation process, with few exceptions (e.g., Coleman et al., 1966; Crain & Weisman, 1972; Gerard & Miller, 1975), have attempted to

use cross-sectional and longitudinal, quasi-experimental methodologies in order to answer the global question, "Does school desegregation work?" Similar to the suggestions of St. John (1975) and Maehr (1974), I propose that we temporarily abandon our efforts to find quantitative evidence regarding the effects of school desegregation upon black student achievement. We should instead loosen the assumptions and procedures of our current, desegregation research models by redirecting our efforts toward the observation and description of those situations in which children of various cultural groups display classroom-related, achievement motivation. We should also attempt to characterize those situations in which these children display "continuing motivation," or the tendency to voluntarily return to and continue working on educational tasks away from the instructional context in which the tasks are first confronted (Maehr, 1976, p. 443). It may be that black students' academic performance will be effectively increased if the situational factors that maximize their continuing and classroom-related, achievement motivation are delineated and replicated within their classrooms.

To what particular situational factors should we initially devote a great portion of our attention? Based upon the evidence presented by Gerard and Miller (1975) regarding the school desegregation program in Riverside, California, it appears that the attitudes and behaviors of classroom teachers may play a crucial role in maintaining or improving the achievement levels of minority students. An important task for future observational research, therefore, is to determine the specific, teacher behaviors within particular classroom settings which tend to foster the continuing

and classroom-related, achievement motivation of minority students.

Some important hypotheses regarding the relationships among teacher behaviors, specific settings, and the achievement levels of minority students may be generated from the results of laboratory studies of social comparison and attribution processes. Social comparison theory (Festinger, 1954) posits that (a) there exists in the human organism a drive to evaluate his/her abilities; and (b) if objective means of evaluation are not available, persons will evaluate their abilities by means of comparisons with the abilities of others. In addition, Goethals and Darley (1977) note that although individuals may attrmpt to compare their abilities with those of others for evaluative reasons, individuals prefer to find that their abilities <u>are</u> superior rather than deficient. When individuals' self-evaluations are threatened, therefore, they tend to seek comparisons with relatively disadvantaged others in order to gain evidence that their abilities are superior to those of others.

Weiner's (1974; 1978) attributional model of achievement motivation posits that individuals who are highly motivated to achieve tend to ascribe success to the internal factors of ability and effort to a greater extent than do individuals with low motivation. In addition, highly motivated persons tend to attribute failure to a lack of effort while those with low motivation attribute failure to their own poor ability. Highly motivated persons, therefore, tend to experience positive affect following success and produce greater achievement strivings following failure than do persons with low motivation.

It may be hypothesized, therefore, that when minority students are transferred from segregated to desegregated schools, they may attempt to make comparison choices with regard to their classroom performance that will provide them with evidence that their performance is better than those of some others.[2] If a downward comparison were successfully made, the minority students' concern with self-esteem maintenance may result in attributing the successful comparison to their own superior ability (Goethals & Darley, 1977). This would allow students to experience positive affect and further initiate achievement-related behaviors.

It may be the case, however, that in many newly-desegregated classrooms, the performance levels of minority students consistently fall within the lower ends of the classroom distributions. The minority students may then be compelled to compare their performance against that of high-achieving, white students. The probability that newly desegregated minority students would receive positive, comparison information in the situation described above would be quite low. As Goethals and Darley (1977) note, individuals who unsuccessfully compare their performance to that of relatively advantaged others, will probably attribute their inferior performance to a low or medium level of ability. Therefore, it may be hypothesized that unless classroom teachers attempt to induce attributions to low effort following unsuccessful, upward comparisons (see Weiner, 1972), minority students in newly desegregated classrooms will experience negative affect and severely limit or cease goal striving.

It should be noted that evidence presented by Gerard and Miller (1975) suggests that the social comparison and attributional processes described above may have contributed to the failure of

minority students in the Riverside schools to increase their academic achievement following desegregation. That is, due to normalization of grading, the classroom performance of minority students tended to serve as a low reference anchor for their white classmates. The minority students, therefore, may have unsuccessfully compared their performance against that of their advantaged, white classmates. In accord with the present hypotheses, minority students showed a significantly greater tendency than did white students to attribute task failure to their own lack of ability. This tendency to attribute failure to a low ability level was significantly related to poor academic achievement. Thus, the reported failure of minority students to improve their academic performance following school desegregation may have been mediated in part by their restricted choice of comparison others, attributional dispositions, and subsequent, limited goal striving and expectations of future failure following unsuccessful, upward comparisons.

In summary, I have reiterated my previous suggestions that effective interventions for improving the academic achievement of minority students may be derived if more is known about the situational factors which affect the continuing and classroom-related, achievement motivation of these students. I have also proposed that in our preliminary, observational investigations, we should begin to devote particular attention to teacher attitudes and behavior and other classroom factors which affect students' choice of comparison persons and attributional dispositions for academic success and failure. In this manner, we may begin to provide answers to the question

posed several years ago by St. John (1975), "What type of child flourishes in what type of setting?" (p. 123).

Reference Note

1. Bradley, L.A. & Hopson, L. A reexamination of Stephan's evaluation of predictions made in Brown v. Board of Education. Manuscript submitted for publication, 1978.

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Footnotes

[1]The search for literature abstracted by the Educational Resources Information Center and the Current Index to Journals in Education was conducted primarily by Laurie Hopson. Many of the opinions expressed in this paper have evolved from helpful discussions with Laurie Hopson and Gifford W. Bradley.

[2]It should be noted that Bradley, Snyder and Katahn (1972) have demonstrated that merely the presence of a white experimenter elicits lower comparison level choices from black students than does the presence of a black experimenter.